REMARKS

Claims 1-64 are pending in the application.

Claims 1-6, 16-21 and 31-43 and 52-57 stand rejected.

Claims 7-15, 22-30, 44-51 and 58-64 are objected to.

Rejection of Claims under 35 U.S.C. § 102

Claims 1-6, 16-21, 31-43 and 52-57 stand rejected under 35 U.S.C. § 102(b), as being anticipated by Dobbins, et al., U.S. Patent No. 5,509,123. Applicants respectfully traverse this rejection.

With respect to claim 1, the cited art fails to anticipate, teach, or suggest "receiving at least one packet; and disposing of the received at least one packet in response to a walk of a Hash Table, wherein the Hash Table is balanced, the Hash Table is configured to store Binary Comparison Trees, and the Hash Table is configured to encode an Access Control List."

Dobbins provides "an object-oriented architecture for network layer routing." Dobbins, Abstract. In this architecture, which "utilizes distributed autonomous forwarding engines," "each interface 11, 14, 17 has a forwarding engine 12, 15, 18 sitting above it, and each forwarding engine knows how to receive and transmit packets on its own interface." Dobbins, col. 7, lines 31-36. Several sections (particular sections B.2 and B.3) of Dobbins describe these distributed forwarding engines.

In section B.3, Dobbins discusses the access list is implemented: "To provide an object-oriented, powerful and very efficient access control mechanism, a base class FAC (Forwarding Access) was invented. For efficiency, FAC keeps access list entries as nodes in an AVL tree. A tree does not have a predefined size and may grow freely." Dobbins, col. 11, lines 9-13.

In section B.2, Dobbins describes how each forwarding engine contains a cache. Dobbins states that: "Performance-sensitive code often employs caching to speed up performance. Typically, hash codes are used to speed retrieval of the hashed data." Dobbins, col. 9, lines 31-33. "As part of the forwarding process, the IP forwarding engine methods (1) validate packet addresses, (2) filter against an access list, and (3) retrieve the next hop from the FIB. These procedures are inherently slow, so the results of these procedures once obtained,

such as address validity, are cached and corresponding procedures are provided in IPACache to lookup the same results quickly." Dobbins, col. 10, lines 22-28.

Accordingly, Dobbins describes a system in which a forwarding engine can access an access list to determine how to filter a packet. Once a filtering decision is made, the forwarding engine can store the result of the filtering procedure in a cache, which can subsequently be accessed using a hash code. Applicants note that in the system taught in Dobbins, the information stored in the cache is a single result (e.g., "permit" or "deny"; See Dobbins, col. 10, lines 38-41), obtained by accessing an access list, and is not an access list itself. Thus, Dobbins does not anticipate, teach, or suggest a Hash Table that is configured to encode an Access Control List.

Furthermore, it is noted that the system recited in Dobbins stores results of accessing an AVL tree, not Binary Comparison Trees themselves, in the cache. Accordingly, Dobbins does not anticipate, teach, or suggest a Hash Table that is configured to store Binary Comparison Trees. Furthermore, that mere statement that a tree that "does not have a predefined size and may grow freely" does not provide any information about whether a hash table is balanced. Thus, Dobbins also does not teach or suggest a Hash Table that is balanced. For at least the foregoing reasons, claim 1 is patentable over the cited art. Claims 2-6 are also patentable for at least these reasons.

Claims 16-21, 31-43 and 52-57 are patentable for reasons similar to the foregoing reasons provided above with respect to claim 1.

Allowable Claims

Claims 7-15, 22-30, and 44-51 and 58-64 were objected to as being dependent upon a rejected base claim, but indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for the thoughtful consideration of these claims. Applicants assert that claims 7-15, 22-30, and 44-51 and 58-64 depend from patentable base claims. Applicants will rewrite these claims in independent form at a later date, if necessary.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5087.

Respectfully submitted,

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